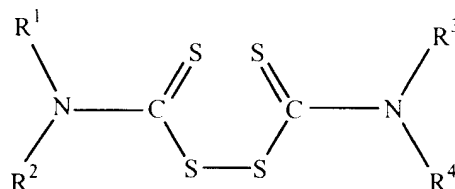




The Examiner has rejected Claims 1-8, 11 and 13-20 under 35 U.S.C. §102(e) as being anticipated by Blok et al. U.S. Patent No. 6,242,523 ("Blok").

Nowhere does Blok disclose or suggest a rubber composition obtained from (a) a rubber component, (b) a silica filler and (c) "a thiuram disulfide of the general formula



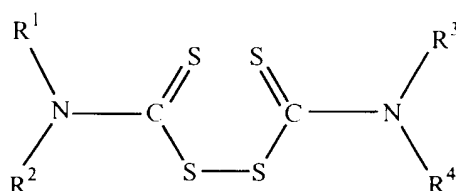
wherein R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> each are the same or different and are hydrocarbons of between 8 and 18 carbon atoms" as presently recited in amended Claim 1. Nor does Blok disclose or suggest a method for increasing the Mooney Scorch value of a rubber composition by employing the specifically recited thiuram disulfide in amended Claim 16.

Rather, Blok discloses rubber compositions containing (a) a rubber component, (b) silica and (c) a vulcanization accelerator. Of the accelerators disclosed in Blok are the following thiuram accelerators: tetramethylthiuram monosulfide, tetraethylthiuram monosulfide and tetramethylthiuram disulfide. At no point is there any disclosure or suggestion in Blok of a thiuram disulfide where the R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> substituents (as shown in the amended claimed compound) are "the same or different and are hydrocarbons of between 8 and 18 carbon atoms" or that the Mooney Scorch value of rubber composition can be increased by employing the

specifically recited thiuram disulfide. Unquestionably then, the amended claims recite novel and nonobvious subject matter relative to Blok.

The Examiner has rejected Claims 1-8, 11-20 and 24 under 35 U.S.C. §102(e) as being anticipated by Materne et al. U.S. Patent No. 6,273,163 ("Materne").

Nowhere does Materne disclose or suggest a rubber composition obtained from (a) a rubber component, (b) a silica filler and (c) "a thiuram disulfide of the general formula



wherein  $R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  each are the same or different and are hydrocarbons of between 8 and 18 carbon atoms" as presently recited in amended Claim 1. Nor does Materne disclose or suggest a method for increasing the Mooney Scorch value of a rubber composition by employing the specifically recited thiuram disulfide in amended Claim 16.

Rather, Materne discloses rubber compositions containing (a) a rubber component; (b) a silica filler and (c) a vulcanization accelerator, e.g., tetramethyl thiuram disulfide. There is no disclosure, suggestion or even a hint of the specifically recited thiuram disulfide of amended Claims 1 and 16 where the  $R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  substituents (as shown in the amended claimed compound) are "the same or different and are hydrocarbons of between 8 and 18 carbon atoms" or that the Mooney Scorch value of rubber composition can be increased by

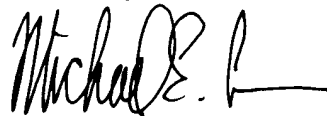
employing the specifically recited thiuram disulfide. As such, amended Claims 1-8, 11-20 and 24 recite novel and nonobvious subject matter relative to Materne. In view of the foregoing, withdrawal of the rejection under 35 U.S.C. §102(e) is warranted and such is respectfully requested.

The Examiner has rejected Claims 5-7 and 19 under 35 U.S.C. §103(a) as being obvious over Okamoto.

The deficiencies of Okamoto discussed above with respect to the rejection of Claims 1 and 16 apply with equal force to this rejection. Accordingly, since Okamoto nowhere discloses or suggests a rubber composition containing, *inter alia*, the specifically recited thiuram disulfide where the R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> substituents are "hydrocarbons of between 8 and 18 carbon atoms" of amended Claims 1 and 16 from which Claims 5-7 and 19 ultimately depend, the rejection under 35 U.S.C. §103(a) is believed to be unwarranted and withdrawal of the rejection is respectfully requested.

For the foregoing reasons, it is submitted that amended Claims 1-7, 10-19 and 22-24 as presented herein are believed to be in condition for immediate allowance. Such early and favorable action is earnestly solicited.

Respectfully submitted,



Michael E. Carmen

Reg. No. 43,533

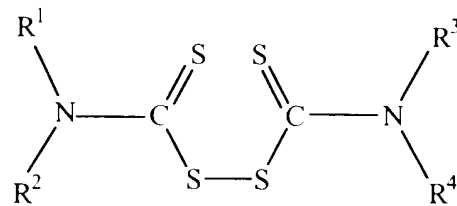
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## APPENDIX A

1. (Amended) A rubber composition comprising (a) a rubber component; (b) a silica filler; and, (c) at least one thiuram disulfide accelerator of the general formula

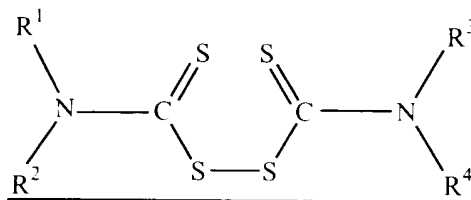


wherein R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> each are the same or different and are hydrocarbons of between 8 and 18 carbon atoms, optionally containing one or more heterocyclic groups, or R<sup>1</sup> and R<sup>2</sup> and/or R<sup>3</sup> and R<sup>4</sup> together with the nitrogen atom to which they are bonded are joined together to form a heterocyclic group, optionally containing one or more heterocyclic atoms, it being provided that diphenyl guanidine is substantially absent in the rubber composition.

10. (Amended) The rubber composition of Claim [8] 1 wherein R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> each are hydrocarbons of between 12 and 14 carbon atoms.

15. (Amended) The rubber composition of Claim 1 [wherein the] having a Mooney Scorch value [of the rubber composition is] greater than that of a similar rubber composition in which a significant amount up to the entire amount of the thiuram disulfide accelerator is replaced with diphenyl guanidine accelerator.

16. (Amended) A method for increasing the Mooney Scorch value of a rubber composition which comprises the steps of forming a rubber composition comprising (a) a rubber component; (b) a silica filler; and, (c) at least one thiuram disulfide accelerator of the general formula:



wherein R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> each are the same or different and are hydrocarbons of between 8 and 18 carbon atoms, optionally containing one or more heterocyclic groups, or R<sup>1</sup> and R<sup>2</sup> and/or R<sup>3</sup> and R<sup>4</sup> together with the nitrogen atom to which they are bonded are joined together to form a heterocyclic group, optionally containing one or more heterocyclic atoms, it being provided that diphenyl guanidine is substantially absent in the rubber composition.

22. (Amended) The method of Claim [20] 16 wherein R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> of the thiuram disulfide each are hydrocarbons of between 12 and 14 carbon atoms.